IN THE CLAIMS:

1. **(Currently Amended)** Piezoelectric single resonator crystal element which is provided with electrodes for excitation on at least one face or on opposing faces thereof and is excitable to produce a thickness shear vibration, wherein said single crystal resonator element has a crystal cut with a fundamental resonance frequency excitable in a thickness shear mode, in which the effective electromechanical coupling factor k_{eff} ~~is~~ has a low value between 0.05% and 3%, and wherein said single crystal resonator element has a frequency of more than 80 kHz, to provide an improved quality factor of said resonator element.

2. **(Original)** Piezoelectric single crystal element according to claim 1, wherein said electromechanical coupling factor k_{eff} is between 0.1% and 2%.

3. **(Cancel).**

4. **(Currently Amended)** Piezoelectric single crystal element according to claim ~~3~~1, wherein the frequency spacing to the nearest excitable anharmonic resonance frequency amounts to >100 kHz.

5. **(Original)** Piezoelectric single crystal element according to claim 1, wherein maximum admittance of the harmonics is <10% relative to said fundamental resonance frequency.

6. **(Original)** Piezoelectric single crystal element according to claim 5, wherein maximum admittance of the harmonics is <5% relative to said fundamental resonance frequency.

7. **(Original)** Piezoelectric single crystal element according to claim 1, wherein said single crystal element is tempered at temperatures of more than 150°C.

8. **(Original)** Piezoelectric single crystal element according to claim 1, wherein the effective thermal expansion coefficients in the plane of said crystal cut deviate from each other by a factor <1.5.

9. **(Previously Presented)** Piezoelectric single crystal element according to claim 1, wherein the linear temperature coefficient of said fundamental resonance frequency amounts to zero at least at one point in the region of an operating temperature of said piezoelectric single crystal element.

10. **(Original)** Piezoelectric single crystal element according to claim 9, wherein said operating temperature is in the range of 10°C to 100°C.

11. **(Original)** Piezoelectric single crystal element according to claim 1, wherein said single crystal element consists of a crystal belonging to crystallographic point group 32.

12. **(Original)** Piezoelectric single crystal element according to claim 11, wherein said crystal element consists of quartz-homeotypic gallium orthophosphate ($GaPO_4$).

13. **(Original)** Piezoelectric single crystal element according to claim 12, wherein the crystal element is a singly rotated Y-cut with a rotation angle Φ between -80° and -88°.

14. **(Original)** Piezoelectric single crystal element according to claim 13, wherein said rotation angle Φ is between -82° and -86°.

15. **(Previously Presented)** Piezoelectric single crystal element according to claim 11, wherein said crystal element consists of at least one crystal material selected from a group consisting of langasite ($La_3Ga_5SiO_{14}$), with langanite ($La_3Ga_{5.5}Nb_{0.5}O_{14}$), and langatate ($La_3Ga_{5.5}Ta_{0.5}O_{.4}$).

16. **(Original)** Piezoelectric single crystal element according to claim 15, wherein the crystal element is a singly rotated Y-cut of langasite ($La_3Ga_5SiO_{14}$), with a rotation angle Φ between -55° and -85°.

17. **(Original)** Piezoelectric single crystal element according to claim 16, wherein said rotation angle Φ is between -60° and -70°.

18. **(Original)** Piezoelectric single crystal element according to claim 1, wherein said single crystal element consists of a crystal belonging to crystallographic space group P321.

19. **(Original)** Piezoelectric single crystal element according to claim 18, wherein said crystal element consists of strontium-gallium-germanate ($Sr_3Ga_2Ge_4O_{14}$).

20. **(Currently Amended)** Method for manufacture of a piezoelectric single crystal resonator element which is excitable in a thickness shear mode, comprising the steps of producing a crystal cut with an excitable fundamental resonance frequency[,] having [an] a low effective electromechanical coupling factor k_{eff} lying between 0.05% and

3%, and having a frequency spacing to the nearest excitable anharmonic resonance frequency of more than 80 kHz, to provide an improved quality factor of said resonator element, and applying electrodes for excitation on at least one face or on opposing faces of said single crystal resonator element.

21. **(Original)** Method according to claim 20, wherein said electromechanical coupling factor k_{eff} laying between 0.1% and 2%.

22. **(Original)** Method according to claim 20, wherein said crystal element is heated to temperatures of more than 150°C during application of said electrodes.

23. **(Original)** Method according to claim 20, wherein said crystal element is subject to a thermal treatment of more than 150°C after application of said electrodes.

24 – 31 **(Cancelled)**.